

SCM Launch Accommodations

Launch accommodations for selected SALMON proposals will be negotiated by the ARC Mission Integration Team as secondary spacecraft on existing or planned launchers. Currently, the USAF Minotaur I, and the SpaceX Falcon 1 are able to launch P-PODs as secondary spacecraft. The USAF flies the Minotaur I, usually from NASA Wallops Flight Facility (WFF) in Virginia approximately every 18 months as part of their TacSat demonstration series. Parameters for the Minotaur I missions are generally 40° inclination and circular LEO orbits around 400km altitude. NASA's Genesat-1 has, and the NASA Pharmsat spacecraft will be launched by a Minotaur I. (See <http://www.orbital.com>).

The SpaceX Falcon 1 is a commercial launch service that typically launches from Kwajalein Atoll in the Pacific Ocean. Falcon 1 can launch to almost any orbit from Kwajalein, but early missions have been to 9° inclination and elliptical orbits of approximately 300 x 700km. (See <http://www.spacex.com>)

Missions in development on other launch vehicles include the USAF S26 mission, which utilizes a Minotaur IV launch vehicle. The S26 will carry two P-PODs as secondary payloads, and is scheduled for December 2009 from Kodiak Alaska. The S26 mission goes to a 72° inclination and 685km altitude. A repeat of this mission (S27) for the Minotaur IV is under consideration by the Air Force for the December 2010 timeframe. While this mission has not been confirmed at this time, the mission parameters for S27 are expected to duplicate the S26 mission. S27 plans to carry at least two P-PODs, as well. The NASA Mission Implementation Team has formally submitted a request to the USAF for two P-PODs slots on the S27 mission.

There are other activities, both within the USAF and NASA to provide P-POD accommodations on other vehicles including the Orbital Taurus and EELV launch vehicles. For SALMON, any one of the accommodations mentioned above, or new capabilities that come on line in the near future could be used to deliver the SALMON SCMs to LEO.